

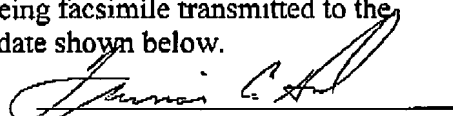
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Francis C. Hand

Art Unit 3651

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Examiner: Rashmi K. Sharma
Applicants: Harry Bussey, Jr., et al
Serial No: 10/725,127
Filed: December 1, 2003
Title: Steam Expander for Loose Fill Material

Customer No.:27192

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Reply Brief

Sir:

This is in response to the Examiner's Answer dated October 19, 2007. No request is being made for an Oral Hearing. A request is made that the appeal be maintained to address the new ground of rejection raised in the Examiner's Answer.

The Examiner has raised new issues, namely:

- I. that claims 3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harrison (US 5,744,186) in view of Hook (US 3,842,971);
- II. that the steam chamber (conditioner 6) of Harrison is considered to inherently expand any type of mash passing therethrough;
- III. that the shaft, paddles and chamber 6 itself of Harrison constitute a paddle frame; and
- IV. that it would have been obvious to one having ordinary skill in the art to modify the flight radii of Harrison in the area under the hopper as taught by Whiteman in order to provide for a varied and/or more finely process of separating of the material coming out of the hopper to be conveyed.

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I. A rejection of Claims 3 and 7 as unpatentable over Harrison in view of Hook is not warranted under 35 U.S.C. 103(a)

Claim 1 from which claim 3 depends requires "a paddle frame rotatably mounted in said chamber to rotate about a central axis" and specifically requires the paddle frame to have "at least one scoop mounted on a periphery thereof and extending longitudinally thereof in spaced parallel relation to said central axis". Claim 3 requires each scoop of claim 1 to be of L shape.

The Examiner alleges that it would be obvious to modify the shape of the plates 17 of Harrison to be L-shaped as taught by Hook in order to provide for a more secure mounting structure so that the "paddle" can operate as necessary.

Hook describes an auger and paddle conveyer apparatus that employs a vertical auger conveyer 118 for conveying beets in an upward direction (See Fig. 2) and a conveyer apparatus located adjacent to the auger conveyer 118 with a plurality of paddles 152 to assist the auger conveyer 118 in conveying the beets upwardly. (See column 6, lines 12 to 22). Each paddle 152 is generally L-shaped and includes a material engaging face portion 178. As indicated in Fig. 2, the paddles 152 are conveyed along a vertical path and project between the flights of the auger conveyer 118.

It is respectfully submitted that there is no teaching in Hook that would motivate one of ordinary skill in the art to make the flat radially disposed plates 17 of Harrison of L-shape. First, the plates 17 of Harrison are part of the paddle conveyer; whereas the paddles 152 of Hook are separate from the auger conveyer 118. Second, providing a short leg on each plate 17 of Harrison to render the plate L-shaped would result in the

short leg being adjacent the shaft of Harrison thereby interfering with the mounting of the plate 17 on the shaft. Third, Hook is directed to a non-analogous structure from that of Harrison.

In view of the above, a rejection of claim 3 as being unpatentable over Harrison in view of Hook is not warranted pursuant to the provisions of 35 USC 103.

Claim 7 depends from claims 5 and 6 and contains recitation similar to claim 3. Accordingly, for reasons as expressed above with respect to claim 3, a rejection of claim 7 as being unpatentable over Harrison in view of Hook is not warranted pursuant to the provisions of 35 USC 103 (a).

II. The steam chamber (conditioner 6) of Harrison cannot inherently expand the mash passing therethrough

Harrison provides a screw feeder 3 for pushing mash against a seal member 4 so that a solid plug of mash is developed in the seal area 5. The solid plug of mash 1 is then pressed against the seal member 4 and forced through the seal area 5 and into a superatmospheric chamber 15. (See column 4, lines 50 to 52). Once the mash 1 particles enter the conditioner [chamber] 6, the mash 1 particles are subjected to a superatmospheric pressure that remains constant. (See column 5, lines 4 to 11). The pressure-cooked mash is transported through the conditioner 6 by a paddle conveyer, is moved to a downspout 20 and then dropped into a screw conveyer 11 which moves the now soft, sticky, hot and wet mash to a die and roller area. (See column 5, lines 37 to 41). The die and roller arrangement allows the steam pressure to be maintained on the mash until it exits the die 10 in the form of rods. (See column 5, lines 48 to 53).

Since the mash in the chamber 6 of Harrison is under constant superatmospheric pressure, the mash is inherently compressed and is not expanded.

In view of the Examiner's misapprehension of Harrison, a rejection of claims 1 and 2 as being anticipated by Harrison is not warranted pursuant to the provisions of 35 USC 102.

**III. The shaft, paddles and chamber 6 itself of
Harrison do not constitute a paddle frame**

The Examiner alleges in page 4 that Harrison has a paddle frame, i.e. "structure which rotates paddles 17 and the horizontal shaft within chamber 6 in Figure 1". Further, the Examiner alleges "the paddle frame having at least one scoop (17) mounted on a periphery thereof". This is a double recitation of structure.

Further, in page 8, the Examiner specifically states that he is relying upon the shaft as well as the paddles and the chamber (6) itself in referencing "a paddle frame".

The Examiner's position is perplexing and confusing as to his interpretation of the alleged "paddle frame" in Harrison.

Note is made that the Examiner has asked applicant to specifically point out exactly what one structure and reference numeral in the drawings denotes the paddle frame alleging that applicant has failed to expressly disclose the structure in the drawings. The attention of the Board is directed to Fig. 4 of applicant's drawings and page 6, 4th paragraph of Applicants' description that reads

The paddle frame 26 is of skeletal construction being formed of a pair of plates 29 that are secured coaxially to and along the central rotatable shaft 27. These plates 29 support a pair of paddles 30 therebetween which serve to agitate and move the loose fill material delivered into chamber 25. The L-shaped scoops 28 are connected as by welding to the forward plate 29 in line with the paddles 30.

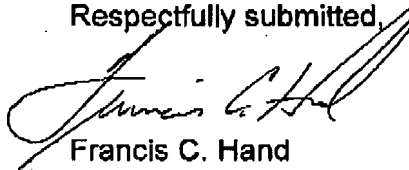
It is respectfully submitted that the shaft, paddles (17) and chamber (6) of Harrison do not constitute a paddle frame. Accordingly, a rejection of claims 1 and 2 as being anticipated by Harrison is not warranted pursuant to the provisions of 35 USC 102.

IV. It would not have been obvious to one having ordinary skill in the art to modify the flight radii of Harrison in the area under the hopper as taught by Whiteman in order to provide for a varied and/or more finely process of separating of the material coming out of the hopper to be conveyed

Since the conveyer 3 of Harrison pushes the mash against a seal member 4 to form a solid plug and forces the mash through a seal area 5, providing the screw feeder 3 with flights of smaller radius than other flights, as in Whiteman, "to provide for a varied and/or more finely process of separating the material coming out of the hopper to be conveyed" would be contrary to the teachings of Harrison. That is to say, Harrison teaches that the mash is to be compressed not separated.

For this additional reason, a rejection of claim 4 as being unpatentable over Harrison in view of Whiteman is not warranted to the provisions of 35 USC 103.

Respectfully submitted,



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